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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,201	09/02/2003	Yo Yanagida	06753.0561	8557

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EXAMINER

PARRIES, DRUM

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/652,201	Applicant(s) YANAGIDA ET AL.	
	Examiner Dru M. Parries	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7-2-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (2005/0168072), Hedrick et al. (3,796,920), and Whyte et al. (4,210,901). Saito teaches a vehicle with power line communication devices (“modules”), which are disposed in the front, rear, left and right doors of the vehicle (DDM, PDM, RRDM, RLDM) (Fig. 1; last three lines of [0129]; [0130], lines 12-21). Saito fails to teach relay units on the power lines in between these modules. Hedrick teaches a relay unit (Fig. 1a) on a power line. The relay unit comprises separators (LT-1, LT-2), first and second receivers (RA-1, RA-2), first and second transmitters (TA-1, TA-2), and a processor (BBR-1) that relays the communication signal. Hedrick fails to teach first and second switches at either end of the power line at the input of the transmitters/receivers. Whyte teaches a relay unit (80) with switches (SW1, SW2) at both ends of the power line at the inputs of the transmitter/receiver, which are controlled by a processor (118) (Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to add Hedrick’s relay units to the power/communication lines of Saito’s invention so that the communication (control) signals can reach their specified destination (module) without any problems (i.e. noise, attenuation). It also would have been obvious to one of ordinary skill in

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the art at the time of the invention to incorporate switches into Saito's invention at the inputs to the relay units to control the signal flow path of the communication signals.

3. Claims 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (2005/0168072), Whyte et al. (4,210,901), and Udren (4,475,209). Saito teaches a vehicle with power line communication devices ("modules"), which are disposed in the front, rear, left and right doors of the vehicle (DDM, PDM, RRDM, RLDM) (Fig. 1; last three lines of [0129]; [0130], lines 12-21). Saito fails to teach relay units on the power lines in between these modules. Whyte teaches relay units (80) on power lines (28, 30) in between two communication devices (14 and 72). He teaches each relay unit comprising first and second switches (SW1, SW2), a receiver (116), a transmitter (120), and a processor (118). He also teaches how the relay unit works in operation (Col. 7, lines 27-62). Based on the operation of the device, it is inherent that the processor "judges" the direction of transmission of the received signal to determine which way to transmit it after being relayed to the transmitter (120). Whyte fails to teach a separator on the power line. Udren teaches a relay unit with a separator (38, 40) on the power line (Col. 4, lines 55-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to add Whyte's relay units to the power/communication lines of Saito's invention so that the communication (control) signals can reach their specified destination (module) without any problems (i.e. noise, attenuation). It also would have been obvious to one of ordinary skill in the art at the time of the invention to add a separator onto the power line to block propagation of the data signal so that the data signal can be coupled to the relay unit.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 8:00am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

1-17-2006



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